STRUCTURAL MATERIALS TESTING BRANCH
OFFICE OF STRUCTURAL MATERIALS
CALIFORNIA DEPARTMENT OF TRANSPORTATION



# PRESTRESSING/POST-TENSIONING ANCHORAGE SYSTEMS PRE-QUALIFICATION SUBMITTAL

All Prestressing/Post-tensioning anchorage systems proposed for use in the State of California shall be submitted in the following form to expedite approval of the system or systems.

Seven (7) copies of the final submittal are required by Caltrans and shall be bound or stapled together with a title page indicating the name or names of the systems and the date of the document submittal.

The individual sections shall be tabbed and listed in the follow order:

## 1. DESCRIPTION

a. Current product description of the system or systems being proposed. Specific information must include the type of stressing steel, the proposed ultimate strength of the system, and information about the proposed hydraulic jack recycling capability.
b. Prior history of the system. Include specific details of projects where the system has been used.
c. Independent tests performed on the system.
d. Explain how seating loss is to be controlled and measured.

## 2. HARDWARE

a. Anchor Head
   1. Detailed drawing, including material description.
   2. Mill certificate, showing material composition, strength, and manufacturer.
   3. Quality control requirements.

b. Bearing Plate
   1. Detailed drawing, including material description.
   2. Mill Certificate, showing material composition, strength, and manufacturer.
   3. Quality control requirements.

c. Wedges or Nuts
   1. Detailed drawing, including material description.
   2. Mill certificate, showing material composition, strength, and manufacturer.
   3. Quality control requirements.

d. Trumpet Detailed Drawings, including material description.

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## 3. CALCULATIONS

a. Stress behind bearing plate service load after losses.
b. Stress behind bearing plate at 95% of specified ultimate tensile strength.
c. Maximum bending stress in bearing plate at 95% of specified ultimate tensile strength.

## 4. SYSTEM

a. Detailed drawings of the anchorage system including anchor head, bearing plate, wedges, reinforcement behind the bearing plate (spiral) and transition devises (trumpets) used between the bearing plate and the duct.
b. Duct details including the type of material used.
c. Jacking system details including jack capacity, system setup, and specific instructions concerning the stressing method to be used by the contractor performing the work.
d. Expected seating loss.
e. Complete description on controlling seating loss.
f. Complete information on grouting procedures and equipment to be used.
g. Complete description of tendon repair or replacement should a failure occur.
h. Complete description of how qualified technical assistance is provided in the field for the contractor performing the work.

All this information will be honored as strictly confidential.